

Title V Air Quality Permit Modification

Kolberg-Pioneer, Inc.

Yankton, South Dakota

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**APPENDIX A - Calculations** 

### 1.0 BACKGROUND

On February 22, 1999, Kolberg-Pioneer Inc. (Kolberg) was issued a Title V air quality permit #28.9906-07 for the operation of three paint spray booths and one air make-up unit at its manufacturing facility located in Yankton, South Dakota.

The permit was modified in May 2001 to include an additional paint spray booth (Unit #5). The modified permit placed an emission limit and record keeping requirements for hazardous air pollutants on the additional booth, exempting Unit #5 from a case-by-case MACT determination.

The permit was modified and renewed in March 2006 to include the installation of two additional paint booths and associated air make-up units.

On December 22, 2009, Kolberg submitted an application to modify its existing permit to include other processes generating particulate matter that were not previously identified in its permit. These processes include two plasma arc cutting tables, welding hoods, shotblast system and a plasma punch.

There have been no complaints or violations filed against this facility since the last permit review.

## 2.0 OPERATIONAL DESCRIPTION

Kolberg is a manufacturing facility for rock crushers, conveyors, and associated construction/industrial equipment. Structural and plate steel is welded and painted at the facility. The Standard Industrial Classification code for this facility is 3535.

## 2.1 Existing Operations

The facility currently has permitted the following emission units:

Table 1-1 Description of Permitted Units, Operations, and Processes

|      |  | Control                                |
|------|--|--|
| Unit | Description  | Device                                 |
| #1   | North Booth – 1992 Texaspray air assist – airless paint booth. The paint booth uses a manual method of spraying.   | Dry filter pads will control overspray |
| #2   | South Booth – 1977 Trimatic air assist – airless paint booth, model number TM-1888018-FLI. The paint booth uses a manual method of spraying.                                       | Dry filter pads will control overspray |
| #3   | Small Parts Booth – 1994 Custom paint booth. The paint booth uses an air assisted airless, manual method of spraying.  | Dry filter pads will control overspray |
| #4   | Small Parts Paint Booth air make-up unit – 1994 Hastings air make up unit, model SBD-277-40-4696, serial number 47754. The unit has a heat input capacity of 4.70 million Btus per | Not Applicable                         |

|      |   | Control                                |
|------|---|--|
| Unit | Description   | Device                                 |
|      | hour and operates on natural gas.   |  |
| #5   | 2000 Logan Valley Paint Booth. The paint booth uses an air assisted airless, manual method of spraying.   | Dry filter pads will control overspray |
| #6   | Conveyor Booth - 2006 Diamond Vogel/Colmet paint booth, model number TDD-1818-100 DT. The paint booth will use an air assisted-airless, manual method of spraying.  | Dry filter pads will control overspray |
| #7   | Fast Track Booth - 2006 Diamond Vogel/Colmet paint booth, model number TOD-2218-80 DT. The paint booth will use an air assisted-airless, manual method of spraying. | Dry filter pads will control overspray |
| #8   | Conveyor paint booth air make-up unit – The unit has a heat input capacity of 9.50 million Btus per hour and operates on natural gas.                               | Not Applicable                         |
| #9   | Fast track paint booth air make-up unit – The unit has a heat input capacity of 9.72 million Btus per hour and operates on natural gas                              | Not Applicable                         |

# 2.2 New Equipment

The application to modify the permitted operations at the facility included the following units:

- 10. ALLTRA Hi-Definition Burn Table HPR 260. Manufactured 9/2007 by Hyper Therm. Emissions from the burn table are controlled by a 2004 Donaldson-Torit 24-bag baghouse.
- 11. ALLTRA Burn Table HPR 260. Manufactured 5/2007 by Hyper Therm. Emissions from the burn table are controlled by a 2007 Farr GS-16 16-bag baghouse.
- 12. Material Testing Laboratory baghouse. 36 bags. Unknown manufacturer & date.
- 13. Hoffman Shotblast System. Compressed air shotblasting system with emissions controlled by a 1994 Donaldson-Torit 54-bag baghouse.
- 14. Welding area. Emissions controlled by a 1990 Donaldson-Torit 4DF48 48 bag baghouse.
- 15. Wheelabrator shotblast furnace. Natural gas fired furnace. Rated at 3 MMBtu/hr heat input.
- 16. Wheelabrator shotblast system. Emissions from the shotblast system are controlled by a 2007 reverse air baghouse with 113 bags.
- 17. Whitney 661-84 Plasma Punch. Manufactured in 1993 by W.A.Whitney and emissions are controlled by a 1993 Donaldson-Torit TD-3-99 3-bag baghouse.

Previous Statement's of Basis had exempted the two plasma cutting tables and the plasma punch for permitting. However, Kolberg is considering venting the two plasma cutting table outdoors and requested a re-review of the submitted units.

### 3.0 EMISSION FACTORS

DENR uses stack test results to determine air emissions whenever stack test data is available from the source or a similar source. When stack test results are not available, DENR relies on

manufacturer data, material balance, EPA's Compilation of Air Pollutant Emission Factors (AP-42, Fifth Edition, Volume 1) document, the applicant's application, or other methods to determine potential air emissions.

# 3.1 Plasma Cutting Systems:

Kolberg submitted fume emission testing data conducted by Hypertherm in February 1999. The study quantified the emissions of particulate matter, nitrogen oxide and various metals emitted when cutting metal on the ALLTRA Burn Tables and with the Whitney Plasma Punch.

**Table 3-1 - Plasma Cutting Emission Factors** 

| Unit # | Particulate matter | Nitrogen Oxide | Metal HAPs |
|--------|--------------------|----------------|------------|
|        | (lbs/hr)           | (lbs/hr)       | (lbs/hr)   |
| 10     | 1.05               | 0.331          | 0.0193     |
| 11     | 1.05               | 0.331          | 0.0193     |
| 17     | 1.75               | 0.97           | 0.0162     |

# **3.2** Fuel Burning Units:

The Wheelabrator furnace burns natural gas. AP-42 emission factors for combustion units are based on the designed gross heat input rate of each unit. Small industrial boilers/furnaces range from 3.5 to 100 million Btus per hour of heat input. Kolberg's furnace is below this range - emission factors for the small industrial boilers will be used. Emission factors for the air make-up units are derived from AP-42, 5th Edition, Tables 1.4-1, -2, -3 & -4, 7/98 based on each unit's designed heat input capacity, an average natural gas heat content of 1,020 Btus per cubic foot, and Equation 3-1 below.

### **Equation 3-1 – Emission factor**

$$Emission factor \left[\frac{pounds}{hour}\right] = input capacity \left[\frac{MMBtus}{hour}\right] \div 1020 \frac{MMBtus}{MMcf} \times AP - 42Emission factor \left[\frac{pounds}{MMcf}\right]$$

The heat input capacity and the resulting emission factors of each permitted unit in terms of pounds of pollutant emitted per hour of operation are summarized in Table 2.

Table 3-2 – Fuel Burning Unit Emission Factors pounds per million standard cubic feet (pounds per hour)

| Unit # | PM      | PM10    | CO     | VOC    | S02     | NOx    | Total   |
|--------|---------|---------|--------|--------|---------|--------|---------|
|        |         |         |        |        |         |        | HAPs    |
| 15     | 7.6     | 7.6     | 84     | 5.5    | 0.6     | 100    | 1.89    |
|        | (0.022) | (0.022) | (0.25) | (0.16) | (0.002) | (0.29) | (0.006) |

### 3.3 Shot Blasting Units:

Kolberg operates two shot blasting units – the Wheelabrator and the Hoffman units. The two shot blasters use steel shot to prepare metal for fabrication and painting. The emission factors

used to determine the potential particulate emissions were obtained from AP-42 13.2.6 Abrasive Blasting, Table 13.2.2.6-1. The emission factor for sand blasting is 27 pounds of particulate matter per1,000 pounds of abrasive used. Section 13.2.6.3 states that particulate matter emissions using steel shot are about 10% of the total emissions using sand. Therefore, an emission factor of 2.7 pounds of particulate matter per 1,000 pounds of abrasive will be used. A similar reduction for the particulate matter 10 microns in diameter or less (PM10) emissions (sand blasting – 13 pounds of PM10 per 1,000 pounds; steel shot 1.3 pounds of PM10 per 1,000 pounds) will be used.

Kolberg stated that 34,000 pounds per year of steel shot are used in the Wheelabrator unit and 18,000 pounds per year in the Hoffman unit.

### 4.0 POTENTIAL EMISSIONS

The potential emissions are calculated based on the emission factors above and assuming each unit is operated at maximum capacity 24 hours a day, 365 days per year (8,760 hours per year). Uncontrolled potential emissions are those that would occur with no emission controls. Controlled potential emissions typically account for the efficiency of any pollution control device.

### **4.1** Fuel Burning Operations

The potential emissions from the fuel burning operations were determined using Equation 4-1:

#### **Equation 4-1 – Potential Fuel Burning Emissions**

Potential Emissions = EF lbs/hr x 8,760 hrs/yr x 1 ton/2000 lbs

Table 4-1 – Potential Emissions, Fuel Burning (tons/yr)

| Unit # | PM  | PM10 | CO  | VOC | S02  | NOx | Total |
|--------|-----|------|-----|-----|------|-----|-------|
|        |     |      |     |     |      |     | HAPs  |
| 15     | 0.1 | 0.1  | 1.1 | 0.7 | 0.01 | 1.3 | 0.03  |

### **4.2** Process Operations

The potential emissions from the fuel burning operations were determined using Equation 4-2:

# **Equation 4-2 – Potential Process Operation Emissions**

Potential Emissions = EF lbs/hr x 8,760 hrs/yr x 1 ton/2000 lbs

**Table 4-2 - Potential Emissions – Plasma Cutting Units** 

| Unit # | PM  | PM10 | NOx | Total |
|--------|-----|------|-----|-------|
|        |     |      |     | HAPs  |
| 10     | 4.6 | 4.6  | 1.4 | 0.08  |
| 11     | 4.6 | 4.6  | 1.4 | 0.08  |
| 17     | 7.7 | 7.7  | 4.2 | 0.07  |

Kolberg's application lists the quantity of particulate matter collected from the baghouses controlling the lab equipment and the welding units. The quantities listed are actual weights. To determine the potential emissions from each process, equation 4-3 was used.

# **Equation 4-3 – Potential Lab and Welding Emissions**

Potential Emissions =  $(PM \ collected) / (0.99) \times (8,760 \ hours) / (Actual Hours) \times (1 \ ton/2000 \ lbs)$ 

Table 4-3 - Potential Emissions – Lab and Welding Units

| Unit #                     | Actual Hours | Particulate | Collection | Potential |  |  |  |
|----------------------------|--------------|-------------|------------|-----------|--|--|--|
|                            | Operated     | Collected   | Efficiency | Emissions |  |  |  |
|                            | _            | (lbs)       | _          | (tons)    |  |  |  |
| 12 - Materials testing lab | 966          | 1           | 99%        | 0.00      |  |  |  |
| 14 - Welding units         | 6,032        | 120         | 99%        | 0.09      |  |  |  |

The potential emissions from the shot blast systems were determined using Equation 4-4:

# **Equation 4-4 - Potential Shotblast Emissions**

Potential Emissions = (EF lbs/1,000 lbs) x (Steel Shot Used) x (8,760 hours) / (Actual Hours) (1 ton/2000 lbs)

**Table 4-4 – Potential Emissions – Shotblast Units** 

| Unit #           | Actual Hours | Steel Shot Used | Pote             | ential |
|------------------|--------------|-----------------|------------------|--------|
|                  | Operated     | (pounds)        | Emissions (tons) |        |
|                  |              |                 | PM               | PM10   |
| 13- Hoffman      | 3,016        | 34,000          | 0.13             | 0.02   |
| shotblast        |              |                 |                  |        |
| equipment        |              |                 |                  |        |
| 16-Wheelabrator  | 3,016        | 18,000          | 0.07             | 0.01   |
| shotblast system |              |                 |                  |        |

**Table 4-5 - Potential Emissions Summary (tons per year)** 

| Unit #          | PM  | PM10 | CO  | VOC   | SO2 | NOx  | HAPs |
|-----------------|-----|------|-----|-------|-----|------|------|
| 1-9             | 0.8 | 0.8  | 8.8 | 113.5 | 0.1 | 10.6 | 22.5 |
| 10 <sup>1</sup> | 4.6 | 4.6  |     |       |     | 1.5  | 0.08 |

| 11 <sup>1</sup> | 4.6  | 4.6  |     |       |      | 1.5  | 0.08 |
|-----------------|------|------|-----|-------|------|------|------|
| 12              | 0.00 | 0.00 |     |       |      |      |      |
| 13              | 0.13 | 0.02 |     |       |      |      |      |
| 14              | 0.09 | 0.09 |     |       |      |      |      |
| 15              | 0.1  | 0.1  | 1.1 | 0.7   | 0.01 | 1.3  | 0.03 |
| 16              | 0.07 | 0.01 |     |       |      |      |      |
| 17 <sup>1</sup> | 7.7  | 7.7  | •   |       |      | 4.2  | 0.07 |
| Total           | 18.1 | 17.9 | 9.9 | 114.2 | 0.01 | 19.1 | 22.8 |

<sup>&</sup>lt;sup>1</sup>PM10 emission factors were not given for these processes. PM10 emission factors were assumed to be similar to PM emissions.

# 5.0 PERMIT REQUIREMENTS

#### 5.1 New Source Review

ARSD 74:36:10:01 notes that new source review regulations apply to areas of the state which are designated as nonattainment pursuant to the Clean Air Act for any pollutant regulated under the Clean Air Act. Kolberg operates in Yankton, South Dakota, which is in attainment for all the pollutants regulated under the Clean Air Act. Therefore, Kolberg is not subject to new source review.

# 5.2 Prevention of Significant Deterioration

Any stationary source which emits, or has the potential to emit, 250 tons per year or more of any air pollutant is subject to prevention of significant deterioration (PSD) requirements (ARSD 74:36:09-40 C.F.R. Part 52.21(b)(1)). Any stationary source which emits, or has the potential to emit, 100 tons per year or more of any air pollutant and is subject to one of the 28 named PSD source categories is subject to PSD requirements (ARSD 74:36:09-40 C.F.R. Part 52.21(b)(1)).

Kolberg is an industrial/construction equipment manufacturer, which is not one of the 28 named PSD source categories and its potential emissions are less than 250 tons per year. Therefore, Kolberg is a minor source under the PSD program and is not subject to PSD requirements.

### 5.3 New Source Performance Standards (40 CFR Part 60)

DENR reviewed the New Source Performance Standards and determined that ARSD 74:36:07:05 - 40 C.F.R., Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units may be applicable to the Wheelabrator shotblast furnace:

1. Commenced construction, modification, or reconstruction after June 9, 1989; and

2. Heat input capacity greater than 10 million Btus per hour but less than 100 million Btus per hour.

The furnace is used to dry moisture from the rough steel prior to shotblasting. The New Source Performance Standard **is not** applicable to the Wheelabrator shotblast furnace because the maximum design operating rate is below 10 million Btus per hour and is not considered a steam generating unit.

### 5.4 National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

DENR reviewed the National Emissions Standards for Hazardous Air Pollutants and determined there are no finalized or promulgated regulations in 40 CFR Part 61 that are applicable to Kolberg's proposed modification.

### **5.6** State Requirements

Any source operating in South Dakota that is applicable to ARSD 74:36:05:03 is required to obtain a Title V air quality permit. As determined in a previous Statement of Basis, Kolberg meets the definition of a major source based on the potential VOC and HAP emissions of the facility. Therefore, they are required to obtain a Title V air quality permit.

#### **5.6.1** State Emission Limits

In accordance with ARSD 74:36:06:01, any unit required to be permitted must comply with the states' particulate matter and sulfur dioxide standards and requirements. Permitted units are also subject to the state opacity limit.

Units #10 and #11, the ALLTRA plasma burn tables Under ARSD 74:36:05:04.01(7) any unit that has the potential to emit two tons or less per year of any criteria pollutant before the application of control equipment may be considered an insignificant activity. The ALLTRA plasma burn tables have the potential to emit 4.6 tons per year of particulate matter. These units will be considered process weight units and allowable emissions calculated accordingly.

Unit #12, the laboratory equipment ventilation baghouse, has a potential emission of less than one ton per year. The equipment is used for the testing of model size rock crushers and screens. In accordance with ARSD 74:36:05:04.01, laboratory equipment used exclusively for chemical or physical analysis is may be considered an insignificant activity. Unit #12 is considered an insignificant activity and is not required to be included in the permit.

Units #13 and #16, the Wheelabrator shotblast and the Hoffman shotblast units have potential emissions of 0.13 and 0.07 tons per year respectively. Under ARSD 74:36:05:04.01(7) any unit that has the potential to emit two tons or less per year of any criteria pollutant before the application of control equipment may be considered an insignificant activity. Unit #13 is considered an insignificant activity and is not required to be included in the permit.

Unit #14, the welding area, has a potential emission of less than one ton per year. Under ARSD 74:36:05:04.01(7) any unit that has the potential to emit two tons or less per year of any criteria pollutant before the application of control equipment may be considered an insignificant activity. Unit #14 is considered an insignificant activity and is not required to be included in the permit.

Unit #15, the Wheelabrator furnace, is rated at a maximum heat input value of 3.0MMBtu/hr. In accordance with ARSD 74:36:05:04:01, any device or apparatus with a heat input capability of not more than 3.5 million Btus per hour may be considered an insignificant activity. Unit #15 is considered an insignificant activity and is not required to be included in the permit.

Unit #17, the Whitney Plasma Punch, is rated at 65Kw. Under ARSD 74:36:05:04.01(7) any unit that has the potential to emit two tons or less per year of any criteria pollutant before the application of control equipment may be considered an insignificant activity. The Whitney Plasma Punch has the potential to emit 7.7 tons per year of particulate matter. This unit will be considered process weight units and allowable emissions calculated accordingly

#### **5.6.2** Allowable Emissions

#### **5.6.2.1** Particulate Matter.

In accordance with ARSD 74:36:06:03(01)(a), the allowable particulate emission rate for process industry units with process weight rates up to 60,000 pounds per hour shall be determined by the following equation:

 $E=4.10x P^{0.67}$ 

E= the rate of emissions in pounds per hour; and

P= process weight rate in tons per hour

Table 5-1 - Comparison of Allowable and Uncontrolled Particulate Emissions

|                 | <b>Process Weight Rate</b> | Allowable Particulate         | <b>Uncontrolled Particulate</b> |
|-----------------|----------------------------|-------------------------------|---------------------------------|
|                 | (tons per hour)            | <b>Emission Rate (lbs/hr)</b> | Emission Rate (lbs/hr)          |
| Unit #10        | 10.2                       | 19.4                          | 1.05                            |
| <b>Unit #11</b> | 10.2                       | 19.4                          | 1.05                            |
| Unit #17        | 6.8                        | 14.8                          | 1.76                            |

In addition to the total suspended particulate matter, permitted units are also required to meet an opacity limit of 20 percent in accordance with ARSD 74:36:12:01.

#### **5.6.2** Performance Tests

ARSD 74:36:06:06 states that stack testing may be required for units with potential emissions greater than 100 tons per year of a regulated pollutant or at the discretion of the secretary. Kolberg will not be required to conduct a stack performance test or fuel analysis at this time.

The current permit contains language that allows DENR to require a stack performance test or fuel analysis during the term of the permit if an investigation of the facility warrants it.

# **5.6.3** Compliance Assurance Monitoring

Compliance assurance monitoring is applicable to permit applications received on or after April 20, 1998, from major sources applying for a Title V air quality permit. DENR received Kolberg's application after April 20, 1998; therefore, compliance assurance monitoring is applicable to any unit that meets the following criteria:

- 1. The unit is subject to an emission limit or standard for the applicable regulated air pollutant;
- 2. The unit uses a control device to achieve compliance with any such emission limit or standard; and
- 3. The unit has potential uncontrolled emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The units at Kolberg's facility do not meet criteria 2 or 3 above; therefore, they are not subject to compliance assurance monitoring.

## 5.6.4 Periodic Monitoring

Periodic monitoring is required for each emission unit that is subject to an applicable requirement at a source subject to Title V of the Federal Clean Air Act. Units that are subject to opacity limits are typically based on periodic visible emission readings. However, based on historical opacity readings of painting operations, visible emission readings are not required.

The facility is currently required to meet hazardous air pollutant emission limits. Kolberg is required to record the facility's monthly hazardous air pollutant emissions, calculate a 12-month rolling total, and submit a quarterly report to verify compliance.

### **5.6.5 Air Fees**

Title V sources are subject to an annual air quality fee. The fee consists of an administrative fee and a per ton fee based on the actual tons per year of pollutant emitted. The pollutants that are charged are particulate matter, sulfur dioxides, nitrogen oxides, volatile organic compounds and hazardous air pollutants. Presently, the air emission fee is \$6.10 per ton of pollutant actually emitted. The actual emissions are calculated by DENR and are based on information provided by the source.

#### 5.7 Summary of Applicable Requirements

Kolberg will be required to obtain a Title V air quality permit and operate within the requirements stipulated in the following regulations:

• ARSD 74:36:05 - Operating Permits for Part 70 Sources;

- ARSD 74:36:06 Regulated Air Pollutant Emissions;
- ARSD 74:36:11 Performance Testing;
- ARSD 74:36:12 Control of Visible Emissions; and
- ARSD 74:37:01 Air Emission Fees.

## 6.0 RECOMMENDATION

Based on the information submitted in the air quality permit renewal application, DENR recommends conditional approval for the modification of Kolberg Pioneer's Title V air quality permit for its operations in Yankton, South Dakota. Questions regarding this permit review should be directed to Keith Gestring, Natural Resources Engineer.

# APPENDIX A

The following changes to the existing permit represent changes that meet the definition of a minor permit amendment. Additions to the existing permit are represented in bold, blue, and underlined, while deletions are represented in red with overstrikes. In the case where permit conditions are deleted or added between permit conditions, the permit conditions will be renumbered appropriately when the permit is issued.

## 1.0 STANDARD CONDITIONS

1.1 Operation of source. In accordance with Administrative Rules of South Dakota (ARSD) 74:36:05:16.01(8), the owner or operator shall operate the units, controls, and processes as described in Table 1-1 in accordance with the statements, representations, and supporting data contained in the complete permit application submitted and dated September 24, 2004, October 14, 2005, October 19, 2005, and November 21, 2005, and December 22, 2009, unless modified by the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

**Table 1-1 Description of Permitted Units, Operations, and Processes** 

|      |  | Control                                |
|------|--|--|
| Unit | Description  | Device                                 |
| #1   | North Booth – 1992 Texaspray air assist – airless paint booth. The paint booth uses a manual method of spraying.   | Dry filter pads will control overspray |
| #2   | South Booth – 1977 Trimatic air assist – airless paint booth, model number TM-1888018-FLI. The paint booth uses a manual method of spraying.   | Dry filter pads will control overspray |
| #3   | Small Parts Booth – 1994 Custom paint booth. The paint booth uses an air assisted airless, manual method of spraying.  | Dry filter pads will control overspray |
| #4   | Small Parts Paint Booth air make-up unit – 1994 Hastings air make up unit, model SBD-277-40-4696, serial number 47754. The unit has a heat input capacity of 4.70 million Btus per hour and operates on natural gas. | Not Applicable                         |
| #5   | 2000 Logan Valley Paint Booth. The paint booth uses an air assisted airless, manual method of spraying.  | Dry filter pads will control overspray |
| #6   | Conveyor Booth - 2006 Diamond Vogel/Colmet paint booth, model number TDD-1818-100 DT. The paint booth will use an air assisted-airless, manual method of spraying.   | Dry filter pads will control overspray |

|            |   | Control  |
|------------|---|--|
| Unit       | Description   | Device   |
| #7         | Fast Track Booth - 2006 Diamond Vogel/Colmet paint booth, model number TOD-2218-80 DT. The paint booth will use an air assisted-airless, manual method of spraying. | Dry filter pads will control overspray               |
| #8         | Conveyor paint booth air make-up unit – The unit has a heat input capacity of 9.50 million Btus per hour and operates on natural gas.                               | Not Applicable                                       |
| #9         | Fast track paint booth air make-up unit – The unit has a heat input capacity of 9.72 million Btus per hour and operates on natural gas                              | Not Applicable                                       |
| <u>#10</u> | ALLTRA Hi-Definition Burn Table HPR 260.  | 2004 Donaldson-<br>Torit 24-bag<br>baghouse          |
| <u>#11</u> | ALLTRA Burn Table HPR 260.  | 2007 Farr GS-16<br>16-bag baghouse.                  |
| <u>#17</u> | Whitney 661-84 Plasma Punch.  | 1993 Donaldson-<br>Torit TD-3-99 3-<br>bag baghouse. |

6.7 Total suspended particulate matter limits. In accordance with ARSD 74:36:06:02(1) and/or ARSD 74:36:06:03(1), the owner or operator shall not allow the emission of total suspended particulate matter in excess of the emission limit specified in Table 6-1 for the appropriate permitted unit, operation, and process.

<u>Table 6-1 – Total Suspended Particulate Matter Emission Limit</u>

| 2 WO CO 2 2 COM SUSPENSION 2 W. COCKWOO 1/2 W. C. Z. |                                  |                       |  |  |
|--|----------------------------------|-----------------------|--|--|
| <u>Unit</u>  | <b>Description</b>               | <b>Emission Limit</b> |  |  |
| <u>#10</u>   | ALLTRA Hi-Definition Burn Table  | 19.4 pounds per hour  |  |  |
| <u>#11</u>   | <b>ALLTRA Burn Table HPR 260</b> | 19.4 pounds per hour  |  |  |
| <u>#17</u>   | Whitney 661-84 Plasma Punch      | 14.8 pounds per hour  |  |  |